

**METHOD FOR FORMING A RELAXED OR
PSEUDO-RELAXED USEFUL LAYER ON A SUBSTRATE**

ABSTRACT

5 A method for forming a relaxed or pseudo-relaxed useful layer on a
substrate is described. The method includes growing a strained semiconductor
layer on a donor substrate, bonding a receiver substrate to the strained
semiconductor layer by a vitreous layer of a material that becomes viscous above a
certain viscosity temperature to form a first structure. The method further
10 includes detaching the donor substrate from the first structure to form a second
structure comprising the receiver substrate, the vitreous layer, and the strained
layer, and then heat treating the second structure at a temperature and time
sufficient to relax strains in the strained semiconductor layer and to form a relaxed
or pseudo-relaxed useful layer on the receiver substrate.

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